Figure 1

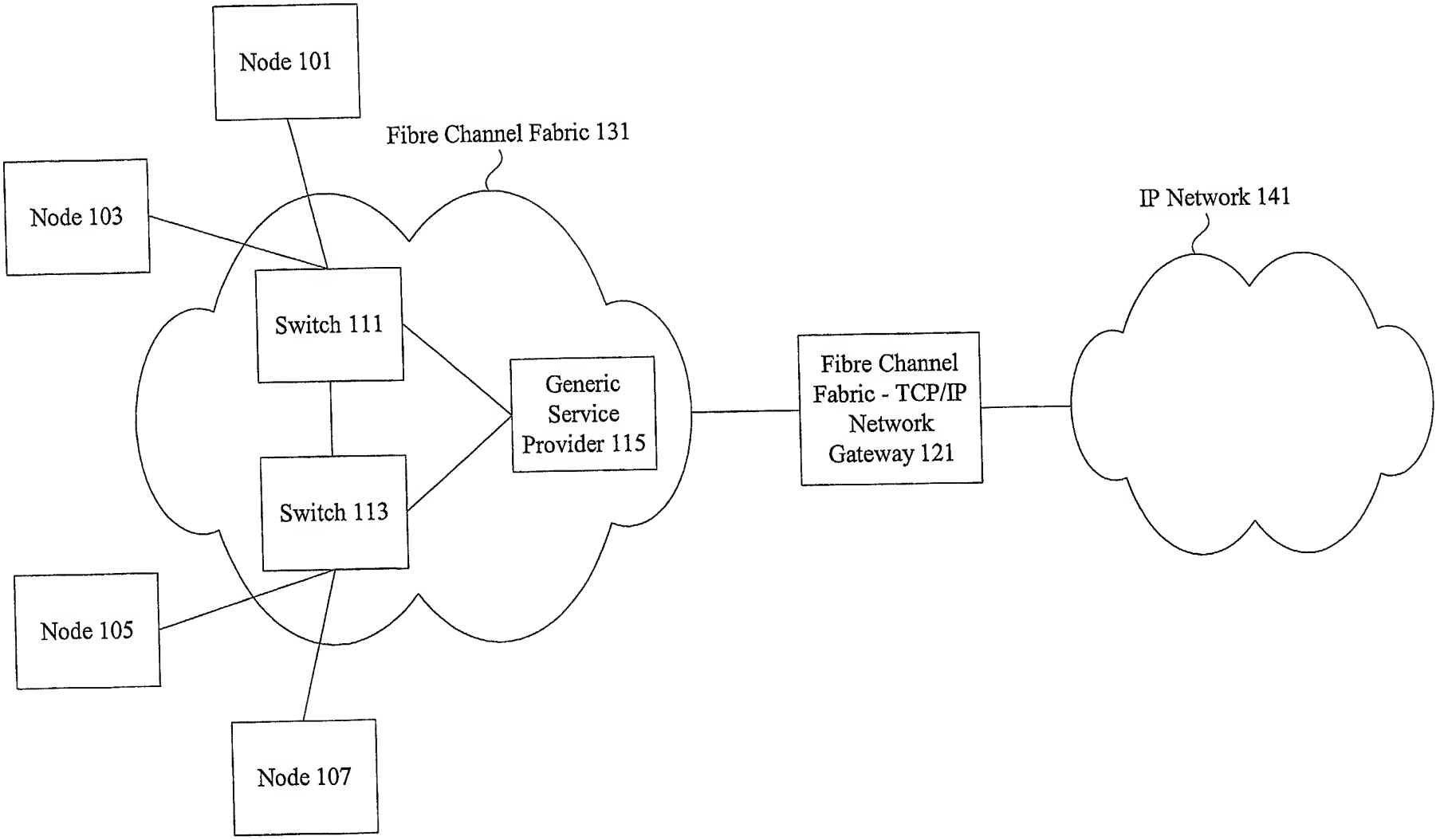

Node 101
Fibre Channel Fabric 131
Node 103
IP Network 141
Switch 111
Generic Service Provider 115
Fibre Channel Fabric - TCP/IP Network Gateway 121
Switch 113
Node 105
Node 107

Figure 2

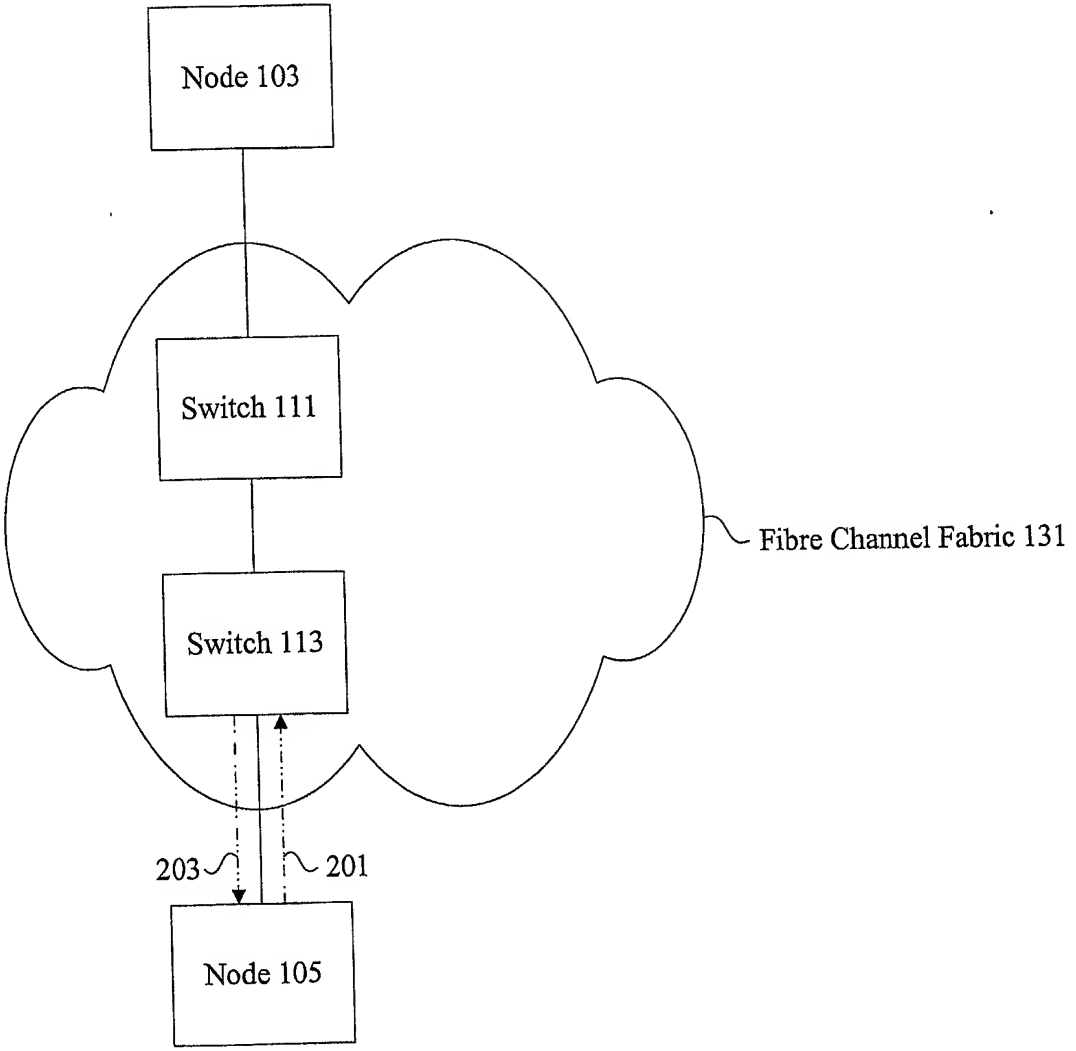
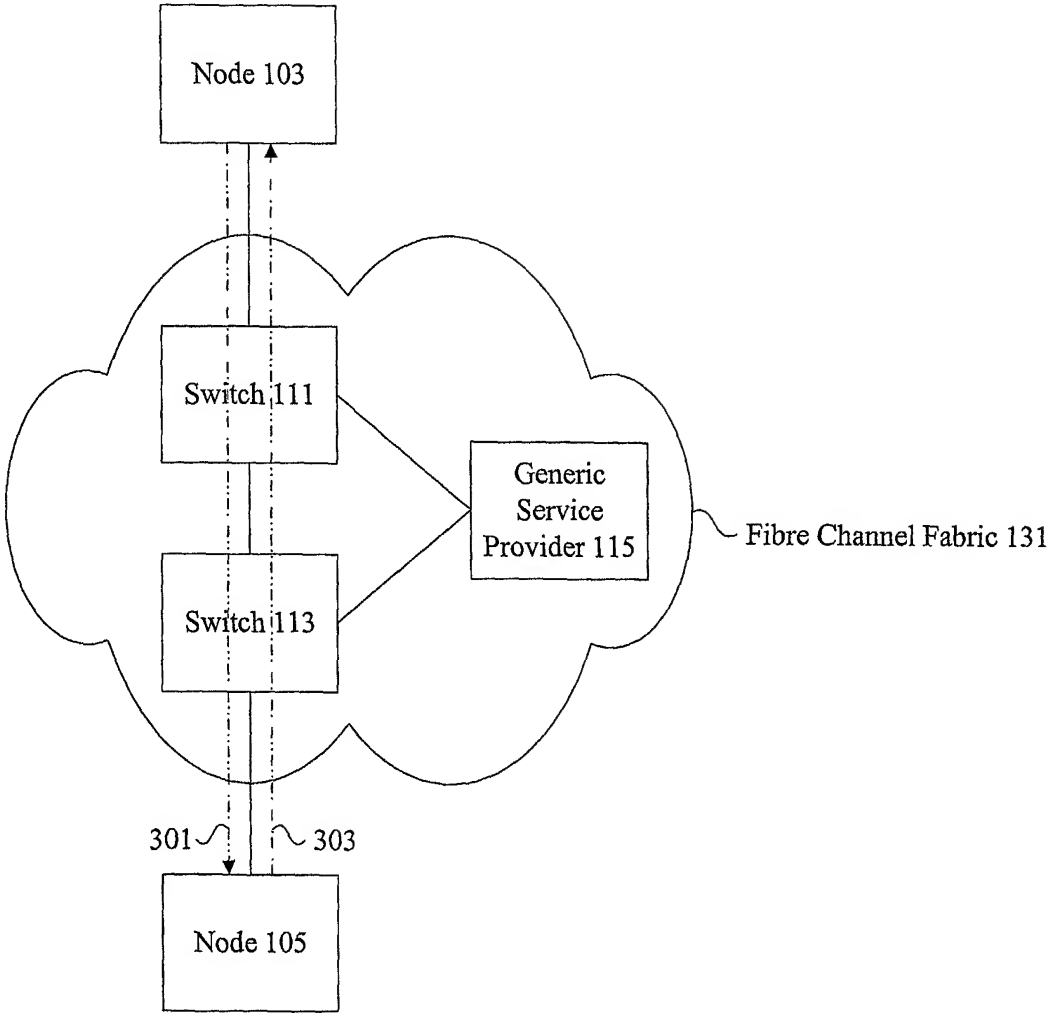

Node 103
Switch 111
Switch 113
Fibre Channel Fabric 131
203
201
Node 105

Figure 3


Node 103
Switch 111
Switch 113
Generic Service Provider 115
Fibre Channel Fabric 131
301
303
Node 105

TO/231 "Express Mail"

Figure 4

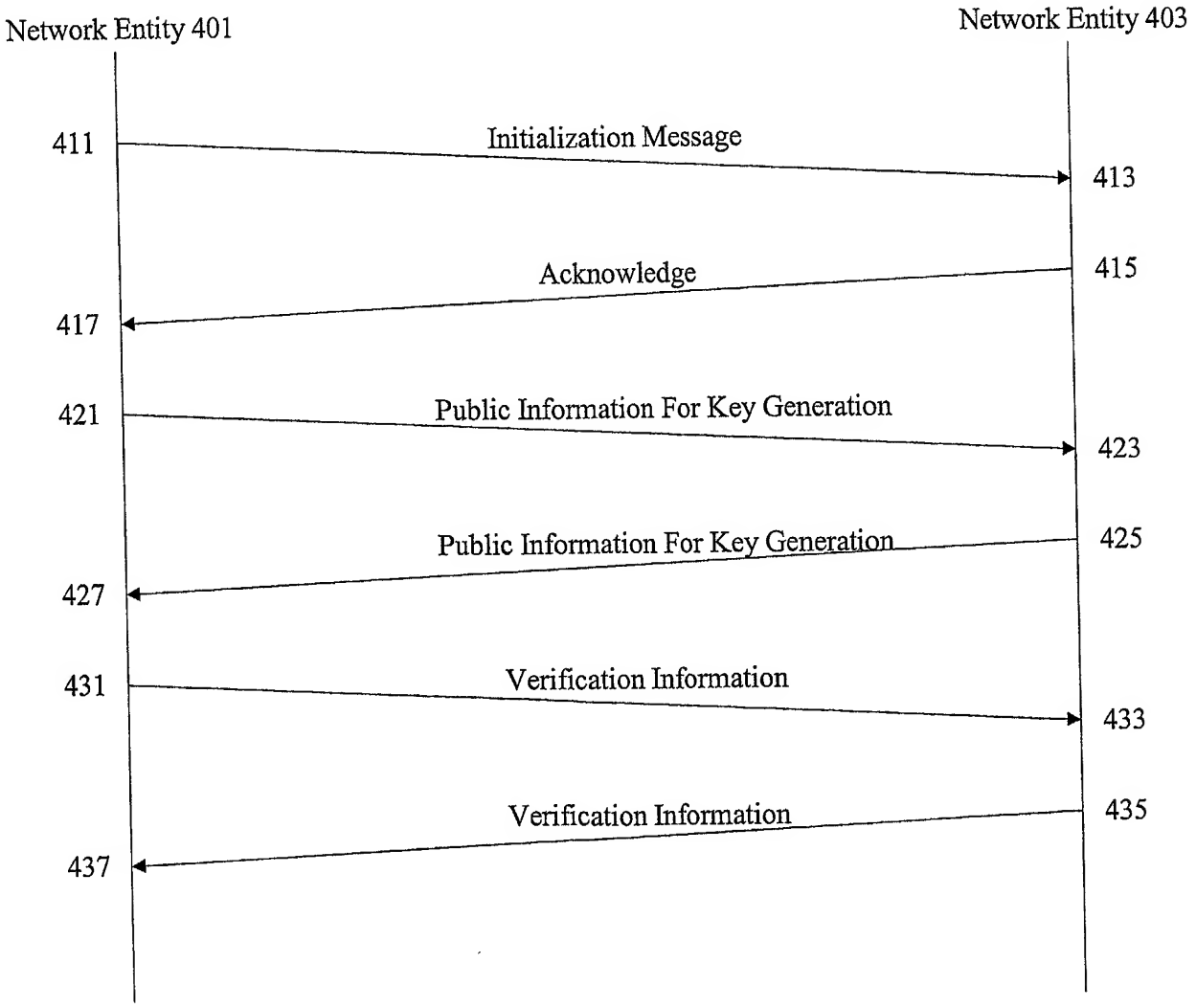


Figure 5

Identifier/Username 501	Password 503 (Optional)	Salt 505	Verifier 507
Node511	Epiph158	26jdk	2h3jksok
...	...	...	...
...	...	...	...
...	...	...	...

Figure 6

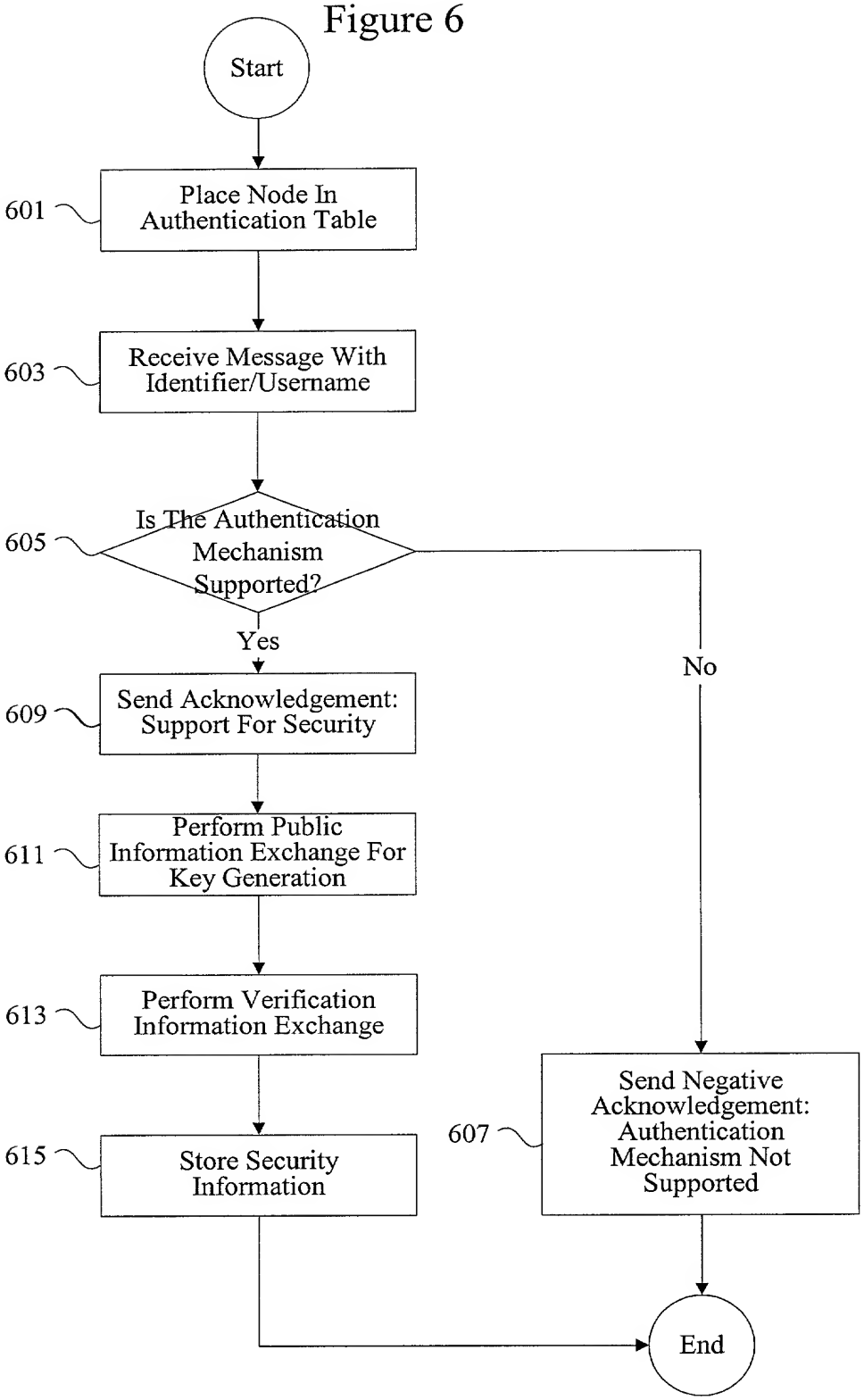

Start
601
Place Node In Authentication Table
603
Receive Message With Identifier/Username
605
Is The Authentication Mechanism Supported?
Yes
No
609
Send Acknowledgement: Support For Security
611
Perform Public Information Exchange For Key Generation
613
Perform Verification Information Exchange
615
Store Security Information
607
Send Negative Acknowledgement: Authentication Mechanism Not Supported
End

Figure 7

Source Address 711	Destination Address 713	Class Of Traffic 715	SPI 701	Key Information 705	Algorithm Information 707
SID13	DID135	Class36	2378349	323jhkd98, 2j39210	3DES, MD5
...	...	...	...	...	...
...	...	...	...	...	...
...	...	...	...	...	...

Figure 8

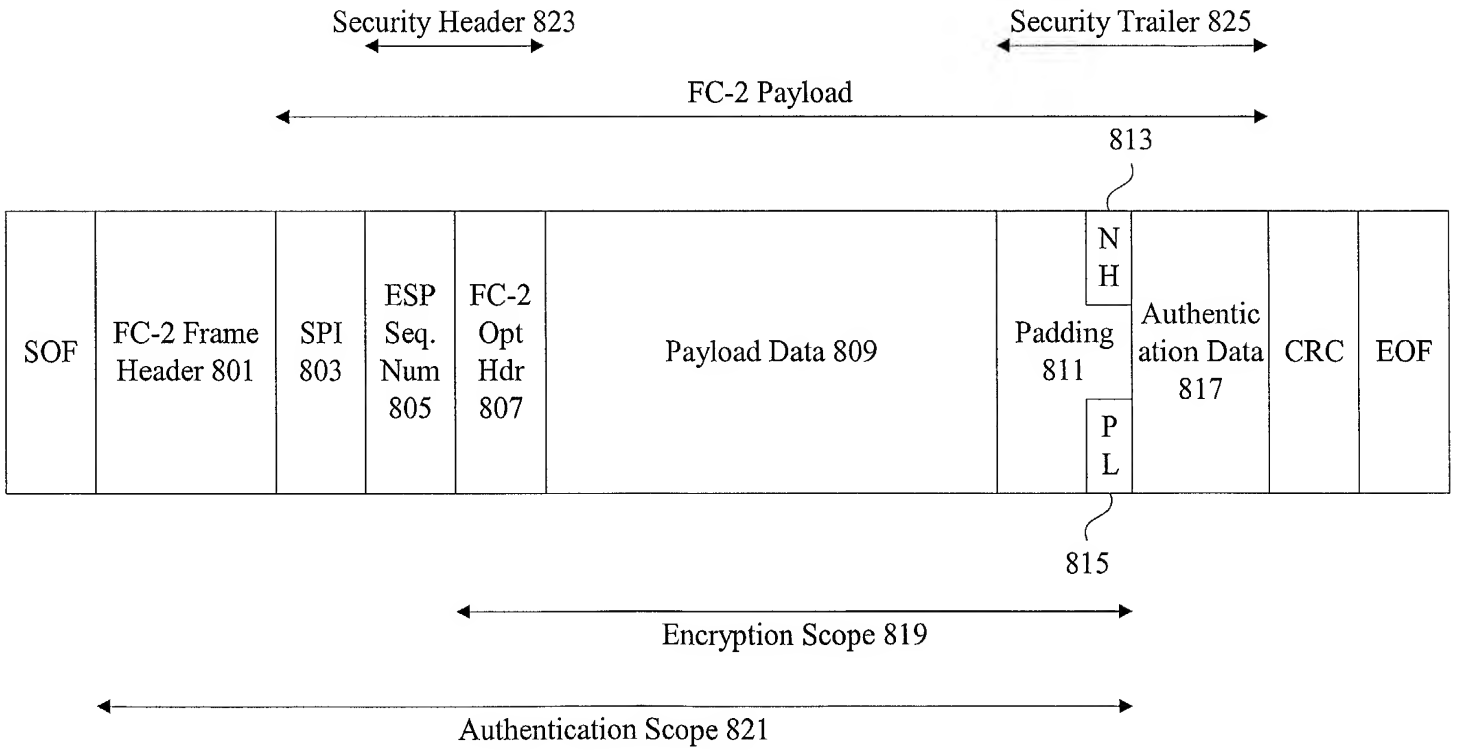

Security Header 823
Security Trailer 825
FC-2 Payload
813
SOF
FC-2 Frame Header 801
SPI 803
ESP Seq. Num 805
FC-2 Opt Hdr 807
Payload Data 809
Padding 811
N H
P L
Authentic ation Data 817
CRC
EOF
815
Encryption Scope 819
Authentication Scope 821

Figure 9

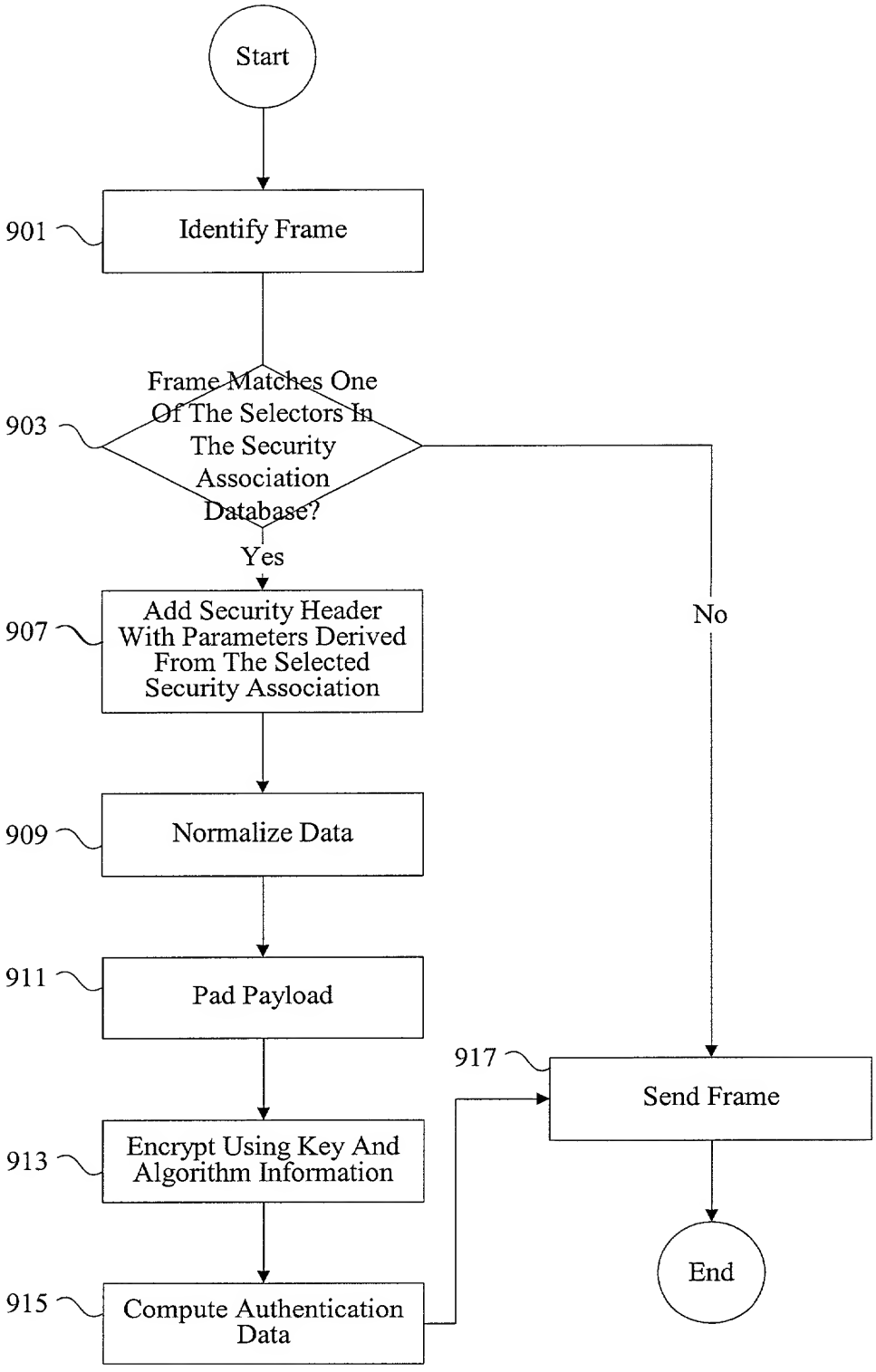
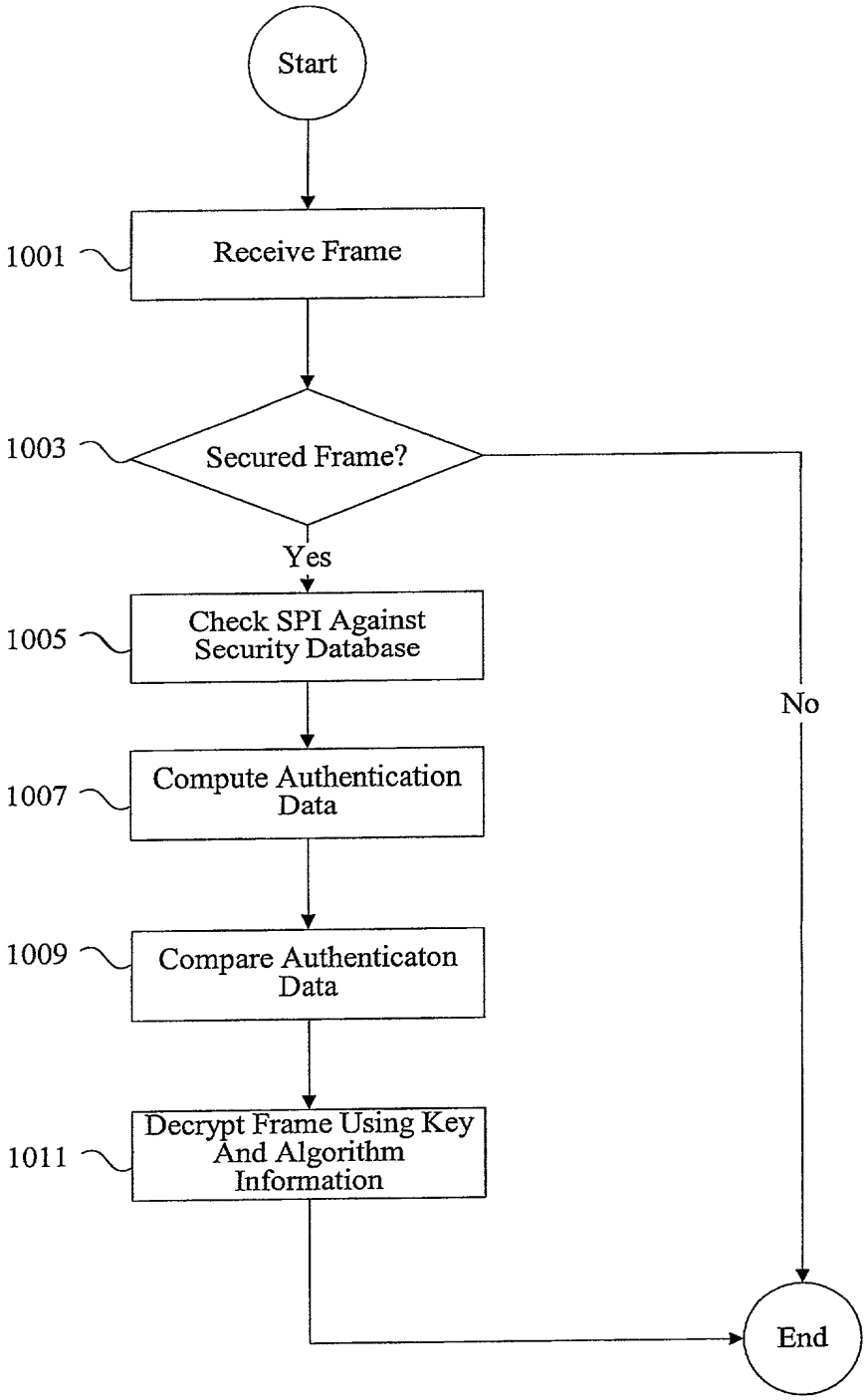

Start
901
Identify Frame
903
Frame Matches One Of The Selectors In The Security Association Database?
Yes
No
907
Add Security Header With Parameters Derived From The Selected Security Association
909
Normalize Data
911
Pad Payload
913
Encrypt Using Key And Algorithm Information
915
Compute Authentication Data
917
Send Frame
End

Figure 10


Start
1001
Receive Frame
1003
Secured Frame?
Yes
No
1005
Check SPI Against Security Database
1007
Compute Authentication Data
1009
Compare Authenticaton Data
1011
Decrypt Frame Using Key And Algorithm Information
End